

600A DC PRIMARY

<0.1% ACCURACY

5KV GALVANIC ISOLATION

IP61

[View DC Energy Metering Solutions on \[satec-global.com.au\]\(https://www.satec-global.com.au\)](#)

FCS-600

(EL0192)

Solid-Core Flux Gate Current Sensor 600A DC Primary

The UHACS (Flux Gate Sensor) series delivers revenue-grade measurement accuracy for most applications when paired with our PRO Series meters, and is a core building block of SATEC's **flux gate current sensing** range for DC energy metering.

Based on advanced active sensing technology, UHACS sensors provide the exceptional linearity and stability required for utility-grade metering across today's diverse energy landscape, with a solid-core clamp body, a 4-pin plug-in connector and a $\pm 15V$ dual supply for straightforward installation.



Main Features

- $\pm 600A$ DC nominal primary current, with a $1.1 \times I_n$ linear measuring range
- $\pm 720A$ DC overload rating for 1 minute without damage
- $<0.1\%$ ($I_n - 0.05 I_n$) accuracy with 0.02% FS linearity
- Fast $\pm 20 \mu s$ response time (di/dt of $100A/\mu s$ rise to $90\% I_n$)
- DC to 20kHz measurement bandwidth
- 5kV RMS/50Hz galvanic isolation between primary and output
- $\pm 40mA$ nominal output signal on a simple 600:40 conversion ratio
- Compact solid-core clamp body rated IP61, for panel or bus-bar mounting

Technical Specifications

GENERAL CHARACTERISTICS

Primary nominal current DC	±600A DC
Linear measuring range (1 min)	$1.1 \times I_n$
Primary overload current	±720A DC @ 1 min
Nominal output signal	±40mA
Supply voltage	±15V DC (±5%)
Current consumption (max)	±430mA
Galvanic isolation	5KV RMS/50Hz/min
Conversion ratio (A/mA)	600 : 40
Weight	420g (± 50g)
Protection of case	IP61

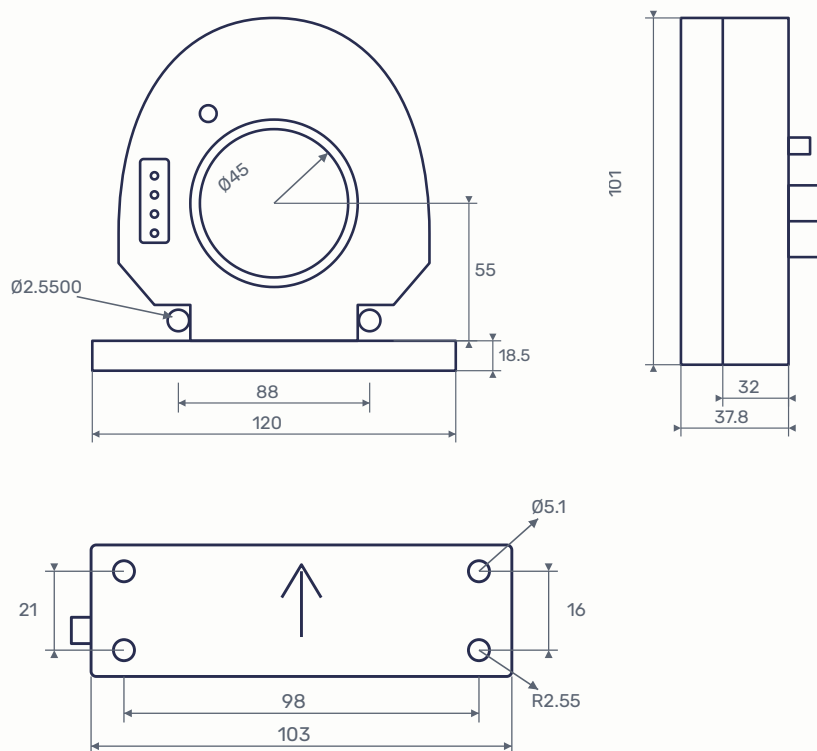
ACCURACY

Zero offset current	±1 μA (@25 °C)
Offset temperature coefficient	40 ppm / K
Measuring resistance	250 Ω
Response time	±20 μs (di/dt of 100A/μs rise to 90% I_n)
Accuracy	<0.1% ($I_n - 0.05 I_n$)
Linearity	0.02% FS
Bandwidth (-3dB)	DC - 20kHz

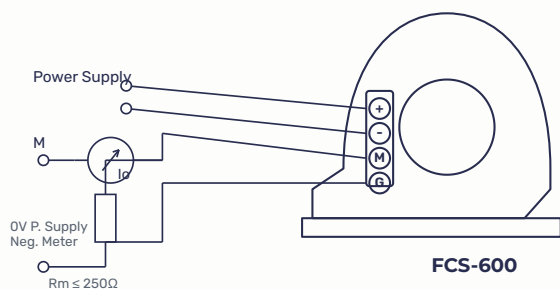
ENVIRONMENTAL

Operating temperature	-40°C ~ +85°C
Storage temperature	-55°C ~ +95°C

Dimensions (mm)



Wiring Sensors



PINS	
PIN	SIGNAL
1	+15V (+)
2	-15V (-)
3	Pos. output (M)
4	0V / Neg. output (G)

Important Notes



- **Incorrect connection may lead to damage of the sensor.** Connect the terminals of the power source and output respectively and correctly. Please pay special attention to the 0V / negative current output connection.
- The best accuracy is achieved when the window is fully filled with bus-bar (current-carrying conductor).
- The current sensor must not be used with the secondary output open-circuited, that is, while the primary has current or the sensor is powered on, the secondary output terminal must not be disconnected; the current output terminal can only be disconnected once the bus has no current and the sensor is not powered on. Otherwise, high voltage may be induced and there is a danger of electric shock or equipment damage.
- When you need to move the product, be sure to cut off the power first and unplug all the connecting cables from it.

DOCUMENT VERSION

VERSION

DATE

TBV1.0

17 September 2026

For related sensors in this range, see the **FCS-300 (300A)** datasheet, or the full **SATEC manuals & datasheets library**. For technical support, contact SATEC Australia via the **contact page** or email **sales@satec-global.com.au**.